Rockfowl

the genus *Picathartes*

Hazell Shokellu Thompson[a] *and Roger Fotso*[b]

Résumé: Le genre *Picathartes* comprend deux espèces, localisés ça et là dans la forêt humide de l'Ouest africain et ses extensions en savane. Ces deux espèces, qui sont considérées comme menacées, constituent une curiosité avienne et leur position systématique prête à controverse, à cause de leur structure et leur comportement particulier. Ces oiseaux bizarres ont la tête nue, vivement colorée, un long cou, une longue queue et des pattes longues et robustes. Ils construisent de gros nids de boue, qu'ils fixent aux parois de grottes ou à des rochers en surplomb, en petites colonies comptant parfois plus de 40 nids.

The two species of *Picathartes* - one on each side of the Benin Gap in the rainforest of West Africa - have long been regarded as avian oddities. To paraphrase William Serle[1], picathartes is bald like a vulture, builds a nest like a swallow's, lays eggs like a crow's but has the cranial bones and pterylosis of a starling. Their secretive behaviour in usually inaccessible habitat has meant that relatively few non-locals have seen them since they were first discovered, White-necked Picathartes *Picathartes gymnocephalus* in Guinea in 1825 and Grey-necked Picathartes *P. oreas* later, in Cameroon, in 1899.

Taxonomic relationships

Unsurprisingly, the taxonomic status of picathartes constitutes an ongoing ornithological puzzle. Originally described as a crow, picathartes is now accorded its own genus and are usually considered as warranting their own subfamily-Picathartinae. After a brief sojourn among the starlings (Sturnidae), picathartes is now usually placed in the Corvidae or Muscicapidae with babblers (Timaliinae) and thrushes (Turdinae) as their closest relatives.

Recent DNA (and anatomical) work by Sibley and Ahlquist[2] supports the corvine relationships of picathartes (the humerus is typically corvine), but suggests that their closest relatives may be the rockjumpers (*Chaetops)* of South Africa, which themselves have usually been placed among babblers or thrushes. Sibley and Ahlquist[2] accord picathartes separate family status: Picathartidae, but in the limbo of 'Parvorder *incertae sedis*' until additional evidence is available. As Brosset[3] has suggested, the two species of picathartes may well be the remnants of an archaic avian order.

Identification

The two species cannot be mistaken for any other bird. They are medium-sized, weighing 200-250 g when fully grown, with a fairly long broad tail (about 180 mm long), which is obviously important in maintaining balance in vines and branches as the birds hop through the forest undergrowth. The wings are moderately sized (about 160 mm long) but surprisingly, the bird rarely makes long flights. The bill is disproportionately large for the bird's size (about 30 mm long), giving it an almost miniature hornbill look. The legs are strong and muscular (tarsus length about 70 mm), appearing silver-grey. The head is bald except for an erectile crest, consisting of a few minute feathers (6-8 mm) on the crown, but these can usually be seen only when the bird is in the hand.

In the White-necked Picathartes, the skin of the head, including the nape, is yellow and contrasts sharply with two black parietal patches, which almost touch at the back of the head. Head coloration in the Grey-necked Picathartes is markedly different: the nape is red and the fore-crown blue, with the blue colour extending to the proximal part of the mandible, to cover the nostril. The two coloured patches are separated by a narrow black line, which expands to form a black triangle on both sides of the head.

Seen in the dim light of the forest undergrowth, the body of the White-necked Picathartes appears mainly black above and white below. Closer observation reveals that it is usually grey-brown above, brown tinges being particularly noticeable in the region of the mantle and tail. Soft grey down-feathers below the contour feathers sometimes give the bird's upper surfaces a silvery sheen. The white feathers on the ventral body surface are actually tinged with lemon, grading into yellow on the throat and upper belly.

The Grey-necked Picathartes is somewhat similar in general body appearance but the underparts including belly and throat are of a soft lemon-yellow colour, with a grey wash on the throat and upper chest. The primaries form a very distinctive black band separating the yellowish vent and the slate grey of the back.

The sexes are alike in both species and visually indistinguishable in the field.

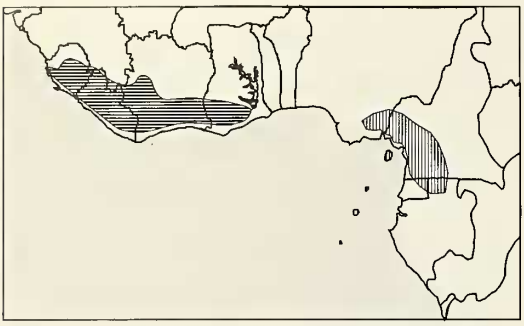


Figure 1. Geographical ranges of White-necked Picathartes *Picathartes gymnocephalus* (vertical hatching) and Grey-necked Picathartes *Picathartes oreas* (horizontal hatching). The ranges indicated show those areas wherein either species could occur if suitable habitat were available. The true distributions are highly fragmented as a result of habitat loss.

Figure 1. Répartition géographique du Picatharte à cou blanc Picathartes gymnocephalus *(hachures verticales) et du Picatharte à cou gris* P. oreas *(hachures horizontales). La carte délimite les aires dans lesquelles les espèces pourraient se trouver si l'habitat approprié était disponible. La distribution réelle est très fragmentée à cause de la destruction de leur habitat.*

Distribution and population

Picathartes is restricted to the Guinea-Congolian rainforest of West Africa. The White-necked Picathartes occurs from Guinea through Sierra Leone, Liberia, Côte d'Ivoire to Ghana. It is separated from its congener Grey-necked Picathartes - found in Nigeria, Cameroon, Gabon and on the island of Bioko - by a finger of savanna which interrupts the West African rainforest belt in the region of Benin and Togo.

Picathartes distribution is, at present, probably best known in Sierra Leone and Cameroon, where there has been recent research work on the two species. In Sierra Leone, White-necked Picathartes was found in six of the seven recently surveyed Forest Reserves. However, with the exception of the Gola Forest, where 37 active colonies with 190 nest were discovered, the number of colonies found in each forest was small (mean=9) and, on average, each colony contained only two nests. There was a high incidence of abandoned sites (38 per cent of the total number discovered) indicating constant and probably increasing pressure on the species. With very few exceptions, colonies were found on steep slopes in primary and secondary forest.

In Cameroon, Grey-necked Picathartes occurs mainly in the coastal lowland rainforest - up to 1800 m on Mount Cameroon - but also in a few other localities further east. Picathartes colonies have been found in the Korup National Park and also in the Campo and the Dja Forest Reserves. The known breeding colonies of picathartes are scattered throughout the range of the species in southern Cameroon and, just like those of the White-necked Picathartes in Sierra Leone, the majority of these colonies consist of two to five nests. A very large colony has recently been found in the Dja Forest Reserve, with around 47 nests built on a single cliff, of which at least 20 were believed to be occupied This is the largest picathartes colony ever seen. The concentration of such a large number of nests on a single cliff is an indication that nesting sites are very rare in this locality.

All recent information from other African countries, although comparatively scanty, buttresses the impression which has emerged from Sierra Leone and Cameroon, of a highly fragmented and threatened West African picathartes population. Thus, although Ash[4] found 91 breeding sites in south-eastern Nigeria, which he believes reflects a total of 500-1000 birds, he points out that this population is seriously threatened by habitat destruction and hunting pressure. Similar situations probably obtain throughout the birds' ranges and both species were considered threatened by Collar *et al*[5].

Breeding

For rainforest birds, Picathartes have a peculiar nesting ecology. Scorning the abundance of vegetation on which to build nests, they construct cup-shaped mud nests on the surface of rocks, boulders, caves and cliffs, a vacant niche which probably offers greater protection from predators for these reluctant fliers.

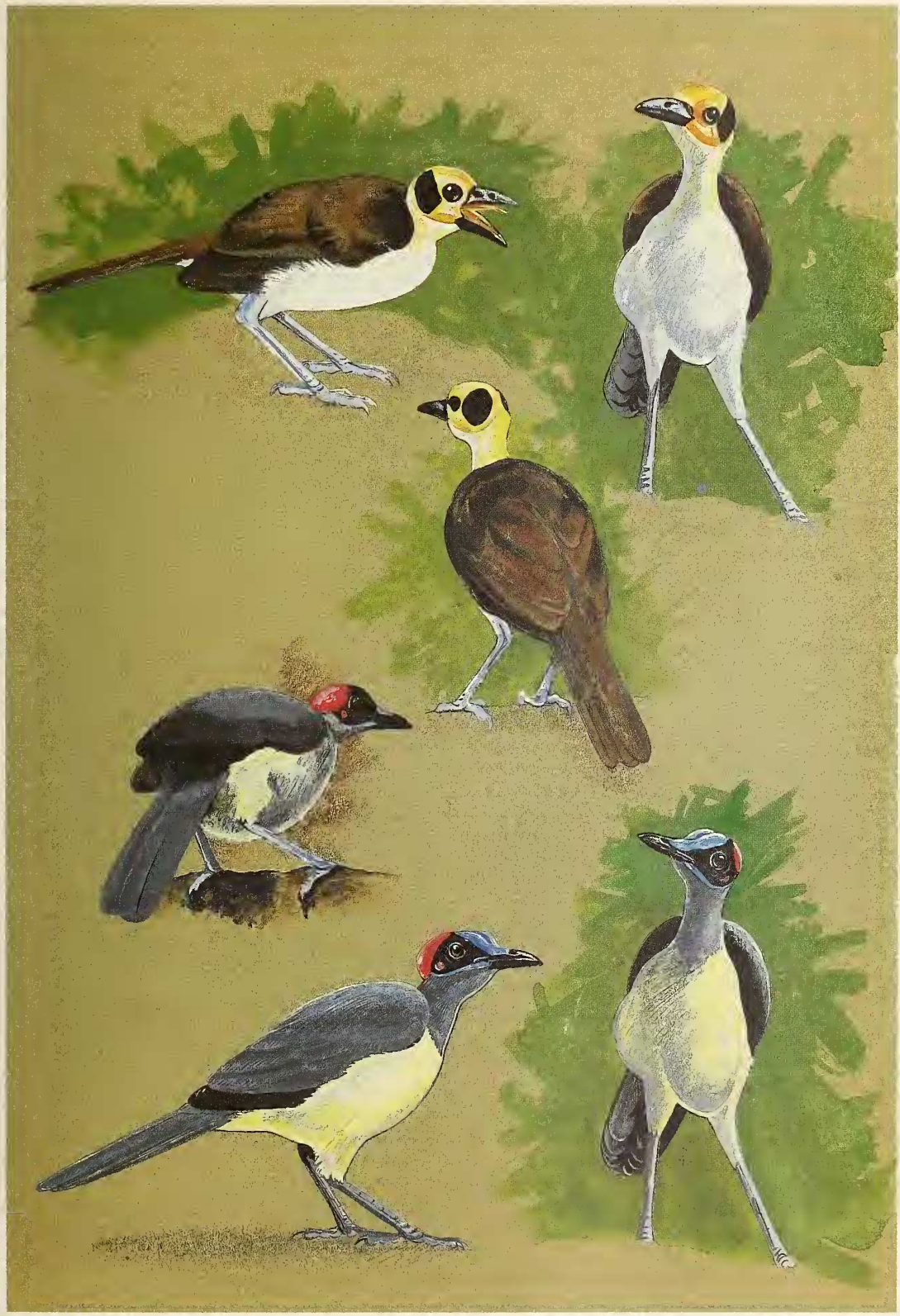
Breeding is associated with the wet season, occurring twice a year where rainfall distribution is bimodal. In Sierra Leone, the first sign of breeding activity is usually the increased occurrence of birds at colonies, which are virtually deserted at other times. Groups of six to eight birds interact by chasing each other in circles and occasionally through the tops of trees. This is often accompanied by peculiar displays involving the head and wings. In one memorable incident, a juvenile Maxwell's Duiker *Cephalopus monticola* strolled on to the display arena, wagging its tail ingratiatingly and tried to join in what looked like good fun. It was promptly snubbed by haughty picathartes and slunk away after a few minutes.

The Grey-necked Picathartes has been shown to build its nest from start to finish in two to three months. Two eggs are usually laid, measuring on average 41 x 23 mm. The eggs are white with chocolate-brown

Plate 3

upper *(en haut)*	lower *(en bas)*
White-necked Picathartes *(Picatharte à cou blanc) Picathartes gymnocephalus*	Grey-necked Picathartes *(Picatharte à cou gris) P. oreas*

By Mark Andrews



streaks mainly concentrated at the blunt end. Incubation proceeds for about three weeks (21-24 days), and chicks spend some four weeks in the nest before fledging. Incubation and feeding of nestlings is carried out by both parents with no evidence of co-operative breeding despite previous speculation.

In both picathartes species, fledglings are virtually indistinguishable from adults in plumage, but the tail is much shorter and the head colours are slightly different: in juvenile White-necked Picathartes, the yellow on the head is slightly paler and mottled with dark spots, while on juvenile Grey-necked Picathartes, the nape is reddish-brown and the fore-crown grey-blue.

Ecology

Picathartes are almost always encountered in primary or secondary forest, usually singly or in pairs but occasionally in small groups of three to four birds. Sustained flight is rare and the bird usually progresses by hopping along the forest floor or by short low-level flights between vines, lianas, buttress roots and trees. Occasional sightings in forest clearings, farmbush and in forest where active tree felling is taking place (manual not mechanised) suggest that the birds may range over a fair-sized area, utilising non-forest habitats to a certain extent and may not be over-sensitive to low levels of disturbance.

Foraging is invariably on the forest floor and on low vegetation not more than one metre in height, but the Grey-necked Picathartes has been reported as occasionally hunting among bat guano in the caves where it breeds. The food of both species consists of forest floor invertebrates: insects, earthworms, millipedes and centipedes. Small vertebrates, primarily frogs and lizards, are also taken but seem to play a larger role in the diet of nestlings than adults. The bill is the prime foraging tool, used for turning over and tossing aside leaves, and capturing prey, with the feet hardly ever being used. Picathartes are frequent followers of carnivorous ant columns, and are often found foraging for flushed prey ahead or among the ants.

Picathartes are relatively hard to see compared to many other rainforest birds, because populations are small and the breeding habitat usually fairly inaccessible. Also, their quick and silent evasive reaction to any untoward movement or sound means that an observer has to be extremely lucky to detect them away from their breeding sites. Once detected by a cautious and quiet observer, however, the bird can be quite bold and confiding, even coming to look at the observer.

Relationships with man

Primarily because of their striking appearance, picathartes have been hunted and trapped extensively for museums, zoos and the bird trade. This process accelerated from 1950 onwards as communication networks improved and travel to remote areas became easier. Trapping for export has now largely died down because of stricter international controls and improved conservation status (eg the White-necked Picathartes has been protected by law in Ghana since 1961 and in Sierra Leone since 1972), but now a local problem is assuming wider dimensions. Many West Africans are traditionally shifting cultivators, clearing a new plot of forest each year. With an increasing human population, more and more forest is being cleared and active picathartes colonies are destroyed by farmers. This is obviously exacerbated by large-scale forest clearance throughout West Africa for commercial and development purposes.

On the other hand, traditional practices in some areas of West Africa are almost certainly contributing to the survival of picathartes. In the south and east of Sierra Leone, for example, the imposing and sometimes bizarre-looking rock formations on which picathartes nest were once thought to house ancestral spirits, and the birds themselves were considered guardians of these ancestral homes. Annual ceremonies involving the offering of food, coins and other objects were carried out at breeding sites to propitiate the ancestors, to make various requests such as for good harvests or to improve fertility for barren women. These ancient practices, now extinct, have left behind a residual respect for the birds, which has persisted in some areas, and people are often reluctant to molest them or destroy their breeding sites. This is undoubtedly a strong base on which to build the vigorous conservation action required throughout West Africa to ensure the survival of these attractive but vulnerable species.

References

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[a]*Department of Zoology, Fourah Bay College, University of Sierra Leone Mount Aureol, Freetown, Sierra Leone.*
[b]*ECOFAC, PO Box 13844, Yaoundé, Cameroon.*